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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,119	11/19/2003	Kiyoshi Masaki	8861-385U1	9898
570	7590	09/15/2004	EXAMINER	
AKIN GUMP STRAUSS HAUER & FELD L.L.P. ONE COMMERCE SQUARE 2005 MARKET STREET, SUITE 2200 PHILADELPHIA, PA 19103-7013			MILLER, BRIAN E	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/718,119	Applicant(s) MASAKI ET AL.	
	Examiner Brian E. Miller	Art Unit 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/509,231.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/17/04 & 11/19/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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This application is a CON of 09/509,231 (now US Patent # 6,741,544 and claims 1-4 are now pending.

Specification

1. The abstract of the disclosure is objected to because it is not commensurate with the now claimed invention. It should be modified appropriately to reflect to currently recited claimed subject matter. Correction is required. See MPEP § 608.01(b).
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Kikuchi et al (US 6,292,461). Kikuchi et al discloses a disk drive apparatus, as shown in at least FIGs. 1, 10, 11, including: a turntable having four or more projections 22 (three shown, however, it is disclosed that the number of projections can be four or more-see col. 5, lines 5-10), each of which has predetermined height, which are arranged at positions wherein a circumference is divided at

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equal intervals, e.g., 120 degrees with three projections (see col. 5, line 31), and the tips of which are substantially on the same plane (see Fig. 11) for supporting a mounted disk 2 by using said four or more projections a clamper having four or more projections 22 (three shown, however, it is disclosed that four or more may be used to match the turntable projections as set forth above), each of which has predetermined height, which are arranged at positions wherein a circumference is divided at equal intervals, and holding said disk between these projections and the projections on said turntable (see col 5, lines 36-40); and positioning means (FIG. 1) including disk table 305, magnet 306, screw 13 for holding said disk between the projections on said turntable and the projections on said clamper disposed opposite to each other (see col. 4, line 59-col. 4, line 26).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 3 & 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al in view of Takahashi et al (US 5,809,002). For a description of Kikuchi et al, see the rejection, supra. Kikuchi et al discloses both combinations in which a flat portion of a turntable

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is provided on which a disk is mounted, and a clamper having 4 or more projections, having predetermined height and on the same plane are provided (FIGs. 8 & 9), and the combination in which the turntable has the projections and the clamper is provided with a flat portion (FIGs. 6 & 7). Kikuchi et al further discloses the use of a frictional body 21 to prevent slippage on a flat face of either the clamper or the turntable (see FIG. 5 and col. 4, lines 33-44).

Kikuchi fails to disclose both the projections and the frictional body in the same embodiment and being rubber.

Takahashi discloses the use of elastic material on a flat, disk-abutting face of the turntable and the clamper (see FIGs. 1-3). It is noted that Takahashi suggests "other soft material having viscous and elastic property may also be utilized" and it is considered that "rubber" would be encompassed within that description. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the clamper of Kikuchi so that it would include the elastic material as taught by Takahashi. The motivation would have been: providing such a material would prevent the disk from slipping from the disk table during playback, but additionally, prevents the disk from adhering to the turntable or clamper (Takahashi, col. 1, lines 35-67). It is also noted that the difference between claims 3 and 4 is merely a reversal of components, which would have been readily apparent to a skilled artisan (See also *In re Einstein*, 8 USPQ 167 (CCPA 1931)).

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al in view of Kouno et al (US 6,198,715) and further in view of Takeuchi et al (US 6,295,269).

Kikuchi et al discloses a disk drive apparatus, as shown in at least FIGs. 1, 10, 11, including: a turntable having four or more projections 22 (three shown, however, it is disclosed that the

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number of projections can be four or more-see col. 5, lines 5-10), each of which has predetermined height, which are arranged at positions wherein a circumference is divided at equal intervals, e.g., 120 degrees with three projections (see col. 5, line 31), and the tips of which are substantially on the same plane (see Fig. 11) for supporting a mounted disk 2 by using said four or more projections a clamper having four or more projections 22 (three shown, however, it is disclosed that four or more may be used to match the turntable projections as set forth above), each of which has predetermined height, which are arranged at positions wherein a circumference is divided at equal intervals, and holding said disk between these projections and the projections on said turntable(see col 5, lines 36-40); and positioning means (FIG. 1) including disk table 305, magnet 306, screw 13 for holding said disk between the projections on said turntable and the projections on said clamper disposed opposite to each other (see col. 4, line 59-col. 4, line 26).

Kikuchi et al fails to disclose a disk device including (a) a sub-base, a main base and a balancer having arc-shaped tracks having a central angle of less than 360 degrees.

Kouno, however, discloses a sub-base 11 to which a spindle motor is installed (FIGs. 1 & 2) and a main base 12/18 over which the sub-base is installed via elastic bodies 13. Also, as shown in FIG. 5, a plurality of arcs 17a, 17b having balancing members 7a, 7b are provided integrally with the turntable/clamper assembly to aid in balancing the disc(s).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the disk drive of Kikuchi so as to include the base and sub-base configuration and balancer as taught by Kouno. The motivation would have been: having the base and sub-base separated by elastic members prevents (or reduces) both internal and external

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vibrations from effecting the movement of the sub-base while recording and/or reproducing on/from the disc (see also col. 6, lines 5-14). Furthermore, providing the arc-shaped tracks and balancing members therein automatically corrects unbalance of the disc 2 so as to enhance the vibration-proof function of the optical disc device (see col. 4, lines 13-19).

The above combination, however, remains silent as to providing separators within the arc-shaped tracks to limit movement of the balancing members.

Takeuchi discusses a balancer system (FIGs. 1 & 2 and col. 2, line 57 to col. 3, line 11) which is similar to the balancing system of Kouno, which is not so favorable in terms of producing vibrations due to excess angular vibrations.

To improve the aforementioned balancer system, Takeuchi discloses a balancer having arc-shaped tracks including 47a with a plurality of arcs having a central angle of less than 360 degrees (see FIGs. 9 and 13) and balance members 42/43/46 provided so as to be movable on the arc-shaped tracks, the balancer provided so as to be rotatable integrally with the disk (see col. 6, lines 45-67).

From this teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the balancer configuration of Kouno et al with the one as described by Takeuchi.

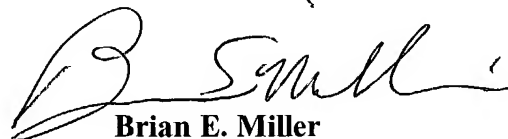
The motivation would have been: having such a balancer reduces the angular velocity startup vibrations and the disk unbalance vibrations, such that higher disk rotational speeds can be achieved (see Takeuchi, col. 1, lines 50-67, and col. 3, lines 1-35).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (703) 308-2850. The examiner can normally be reached on M-TH 7:15am-4:45pm (and every other friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brian E. Miller
Primary Examiner
Art Unit 2652

BEM
September 14, 2004